

RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFFFFF	FFFFFFFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFFFFF	FFFFFFFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFFFFF	FFFFFFFFFFFFFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFFFFFFF	FFFFFFFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFFFFFFF	FFFFFFFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFFFFFFF	FFFFFFFFFFFFFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	

```
EEEEEEEEEE LL SSSSSSSS EEEEEEEEEE NN NN
EEEEEEEEEE LL SSSSSSSS EEEEEEEEEE NN NN
EE LL SS SSSSSSSS EEEEEEEEEE NN NN
EE LL SS SSSSSSSS EEEEEEEEEE NN NN
EE LL SS SSSSSSSS EEEEEEEEEE NN NN
EEEEEEEEEE LL SSSSSSSS EEEEEEEEEE NN NN
EEEEEEEEEE LL SSSSSSSS EEEEEEEEEE NN NN
EE LL SS SSSSSSSS EEEEEEEEEE NN NN
EE LL SS SSSSSSSS EEEEEEEEEE NN NN
EE LL SS SSSSSSSS EEEEEEEEEE NN NN
EEEEEEEEEE LLLLLLLLLL SSSSSSSS EEEEEEEEEE NN NN
EEEEEEEEEE LLLLLLLLLL SSSSSSSS EEEEEEEEEE NN NN
```

```
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LL I I I I I SSSSSSSS
LLLLLLLLLL I I I I I SSSSSSSS
LLLLLLLLLL I I I I I SSSSSSSS
```

ELSEN

E 14
16-Sep-1984 00:22:32
14-Sep-1984 13:06:06VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[RUNOFF.SRC]ELSEN.BLI;1 Page 1 (1)

```
1 0001 0 MODULE ELSEN (
2 0002 0 IDENT = 'V04-000'
3 0003 0 XBLISS32[
4 0004 0 ADDRESSING_MODE(EXTERNAL=LONG_RELATIVE, NONEXTERNAL=LONG_RELATIVE)
5 0005 0 ]
6 0006 0 ) =
7 0007 1 BEGIN
8 0008 1
9 0009 1 *****
10 0010 1 *
11 0011 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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23 0023 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
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27 0027 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
28 0028 1 *
29 0029 1 *
30 0030 1 *****
31 0031 1
32 0032 1 ++
33 0033 1 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
34 0034 1
35 0035 1 ABSTRACT: Processes .END LIST and .END NOTE commands
36 0036 1
37 0037 1
38 0038 1 ENVIRONMENT: Transportable
39 0039 1
40 0040 1 AUTHOR: R.W.Friday CREATION DATE: January, 1980
41 0041 1
```


ELSEN
V04-000

Revision History

F 14
16-Sep-1984 00:22:32
14-Sep-1984 13:06:06

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[RUNOFF.SRC]ELSEN.BLI;1 Page 2 (2)

:	43	0042	1	XSBTTL 'Revision History'
:	44	0043	1	
:	45	0044	1	MODIFIED BY:
:	46	0045	1	
:	47	0046	1	008 KAD00008 Keith Dawson 5-July-1983
:	48	0047	1	Made default spacing agter a note 1 instead of 2.
:	49	0048	1	
:	50	0049	1	007 KFA00007 Ken Alden 07-Mar-1983
:	51	0050	1	Global edit of all modules. Updated module names, idents,
:	52	0051	1	copyright dates. Changed require files to BLISS library.
:	53	0052	1	
:	54	0053	1	--

```

56 0054 1 %SBTTL 'Module Level Declarations'
57 0055 1
58 0056 1
59 0057 1 TABLE OF CONTENTS:
60 0058 1
61 0059 1
62 0060 1 INCLUDE FILES:
63 0061 1
64 0062 1
65 0063 1 LIBRARY 'NXPORT:XPORT'; ! XPORT Library
66 0064 1 REQUIRE 'REQ:RNODEF'; ! RUNOFF variant definitions
67 0195 1
68 U 0196 1 %IF DSRPLUS %THEN
69 U 0197 1 LIBRARY 'REQ:DPLLIB'; ! DSRPLUS BLISS Library
70 0198 1 %ELSE
71 0199 1 LIBRARY 'REQ:DSRLIB'; ! DSR BLISS Library
72 0200 1 %FI
73 0201 1
74 0202 1
75 0203 1 MACROS:
76 0204 1
77 0205 1
78 0206 1 EQUATED SYMBOLS:
79 0207 1
80 0208 1
81 0209 1 LITERAL
82 0210 1 LFSPAC = 1; !Spacing after end of a list
83 0211 1 NFSPAC = 1; !Spacing after end of a note
84 0212 1
85 0213 1
86 0214 1 OWN STORAGE:
87 0215 1
88 0216 1
89 0217 1 EXTERNAL REFERENCES:
90 0218 1
91 0219 1
92 0220 1 EXTERNAL
93 0221 1 FNCT : FNCT DEFINITION,
94 0222 1 GCA : GCA DEFINITION,
95 0223 1 LSTCNT : REF COUNTED LIST, !.LIST ELEMENT counters and controls.
96 0224 1 NUMPRM : NUMPRM DEFINE,
97 0225 1 PHAN : PHAN DEFINITION,
98 0226 1 SCA : SCA_DEFINITION;
99 0227 1
100 0228 1 !
101 0229 1
102 0230 1 EXTERNAL LITERAL !Error messages
103 0231 1 RNFI:T,
104 0232 1 RNFINM;
105 0233 1
106 0234 1 EXTERNAL ROUTINE
107 0235 1 ERMA,
108 0236 1 GCPOS,
109 0237 1 GCSKIP,
110 0238 1 STKFRM;
111 0239 1

```

```
113 0240 1 GLOBAL ROUTINE ELSEN (HANDLER_CODE) : NOVALUE =
114 0241 1
115 0242 1 ++
116 0243 1 FUNCTIONAL DESCRIPTION:
117 0244 1
118 0245 1 See ABSTRACT, above.
119 0246 1
120 0247 1 FORMAL PARAMETERS:
121 0248 1
122 0249 1 HANDLER_CODE indicates which command is to be processed.
123 0250 1
124 0251 1 IMPLICIT INPUTS:
125 0252 1
126 0253 1 NUMPRM contains a number, as processed by GETNUM.
127 0254 1
128 0255 1 IMPLICIT OUTPUTS: None
129 0256 1
130 0257 1 ROUTINE VALUE:
131 0258 1 COMPLETION CODES: None
132 0259 1
133 0260 1 SIDE EFFECTS: None
134 0261 1
135 0262 1 --
136 0263 1
137 0264 2 BEGIN
138 0265 2 LOCAL
139 0266 2 DEFAULT_SPACING,
140 0267 2 FINAL_SPACING;
141 0268 2
142 0269 2 !Pop the .LIST and .NOTE stack.
143 0270 2 IF NOT STKFRM (.HANDLER_CODE)
144 0271 2 THEN
145 0272 2 RETURN; !Stack underflow, etc
146 0273 2
147 0274 2 !Set up default .END xxxx spacing.
148 0275 2 SELECTONE .HANDLER_CODE OF
149 0276 2 SET
150 0277 2
151 0278 2 [H_END NOTE] :
152 0279 2 BEGIN
153 0280 2 DEFAULT_SPACING = NFSPAC*.SCA_SPACING;
154 0281 2 END;
155 0282 2
156 0283 2 [H_END LIST] :
157 0284 2 BEGIN
158 0285 2 DEFAULT_SPACING = LFSPAC*.SCA_SPACING;
159 0286 2 !Drop back one level in list counters.
160 0287 2 LSTCNT [CL_INDEX] = .LSTCNT [CL_INDEX] - 1;
161 0288 2 END;
162 0289 2
163 0290 2 TES;
164 0291 2
165 0292 2 !General coding for both .END LIST and .END NOTE.
166 0293 2
167 0294 2 !Generate final spacing after list
168 0295 2 IF (NOT .NUM_RESULT) !If the number is bad,
169 0296 2 OR (.NUM_LENGTH EQL 0) !or no number was specified,
```


ELSEN
V04-000

Module Level Declarations

I 14
16-Sep-1984 00:22:32
14-Sep-1984 13:06:06

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[RUNOFF.SRC]ELSEN.BLI;1 Page 5
(4)

```

170 0297 2 THEN
171 0298 !Use default .END xxxx spacing.
172 0299 FINAL_SPACING = .DEFAULT_SPACING
173 0300
174 0301 ELSE
175 0302 !User has specified the .END xxxx skip.
176 0303 !Validate it and then do it.
177 0304 BEGIN
178 0305 FINAL_SPACING = .NUM_VALUE*.SCA_SPACING; !Convert to .SPACING lines.
179 0306
180 0307 IF .FINAL_SPACING LSS 0
181 0308 THEN
182 0309 !User said something like .END xxxx -5,
183 0310 !which means to position to 5 lines from the
184 0311 !bottom.
185 0312 IF .FNCT_COLLECTING !This is TRUE if user is inside a footnote.
186 0313 THEN
187 0314 BEGIN !.END xxxx with negative value is illegal in a footnote.
188 0315 ERMA (RNFIFT, FALSE);
189 0316 FINAL_SPACING = .DEFAULT_SPACING
190 0317 END
191 0318 ELSE !
192 0319 IF ABS (.FINAL_SPACING) GEQ .PHAN_LLines
193 0320 THEN
194 0321 !User said something like .END xxxx -9999.
195 0322 BEGIN
196 0323 !Complain to the user
197 0324 ERMA (RNFIM, FALSE);
198 0325 !Use default spacing instead of erroneous spacing
199 0326 FINAL_SPACING = .DEFAULT_SPACING
200 0327 END
201 0328
202 0329 ELSE
203 0330 !It's a valid negative skip
204 0331 BEGIN
205 0332 GCPOS(.NUM_VALUE);
206 0333 RETURN
207 0334 END
208 0335
209 0336 END;
210 0337
211 0338 !If we arrive here, it's either .END xxxx with no skip specified,
212 0339 !or else the skip is a positive skip.
213 0340 !Bad skip specifications continue here too.
214 0341
215 0342
216 0343 !Check for .END xxxx 0
217 0344 IF .FINAL_SPACING NEQ 0
218 0345 THEN
219 0346 !SCA_SPACING is subtracted off because when ENDCHR gets
220 0347 !called again (eventually) it will add that many blank
221 0348 !lines.
222 0349 GCSKIP ( MAX(1, .FINAL_SPACING - (.SCA_SPACING - 1)) );
223 0350
224 0351 END; !End of ELSEN
```

				.TITLE	ELSEN	
				.IDENT	\V04-000\	
				.EXTRN	FNCT, GCA, LSTCNT	
				.EXTRN	NUMPRM, PHAN, SCA	
				.EXTRN	RNFIFT, RNFINM, ERMA	
				.EXTRN	GCPOS, GCSKIP, STKFRM	
				.PSECT	\$CODE\$,NOWRT,2	
				.ENTRY	ELSEN, Save R2,R3,R4,R5	0240
	55	00000000G	EF 003C 00000	MOVAB	NUMPRM+4, R5	
	54	00000000G	EF 9E 00002	MOVAB	SCA+124, R4	
	52	04	AC D0 00010	MOVL	HANDLER_CODE, R2	0270
			52 DD 00014	PUSHL	R2	
00000000G	EF		01 FB 00016	CALLS	#1, STKFRM	
	01		50 E8 0001D	BLBS	R0, 1\$	
			04 00020	RET		
	3D		52 D1 00021 1\$:	CMPL	R2, #61	0278
			06 12 00024	BNEQ	2\$	
	53	00	B4 D0 00026	MOVL	@SCA+124, DEFAULT_SPACING	0280
			13 11 0002A	BRB	3\$	0275
	3B		52 D1 0002C 2\$:	CMPL	R2, #59	0283
			0E 12 0002F	BNEQ	3\$	
	53	00	B4 D0 00031	MOVL	@SCA+124, DEFAULT_SPACING	0285
	50	00000000G	EF D0 00035	MOVL	LSTCNT, R0	0287
		04	A0 D7 0003C	DECL	4(R0)	
	3D	FC	A5 E9 0003F 3\$:	BLBC	NUMPRM, 7\$	0295
		0B	A5 D5 00043	TSTL	NUMPRM+12	0296
			38 13 00046	BEQL	7\$	
52	65	00	B4 C5 00048	MULL3	@SCA+124, NUMPRM+4, FINAL_SPACING	0304
			40 18 0004D	BGEQ	9\$	0306
	0A	00000000G	EF E9 0004F	BLBC	FNCT+20, 4\$	0311
			7E D4 00056	CLRL	-(SP)	0314
		00000000G	8F DD 00058	PUSHL	#RNFIFT	
			19 11 0005E	BRB	6\$	
	50		52 D0 00060 4\$:	MOVL	FINAL_SPACING, R0	0319
			03 18 00063	BGEQ	5\$	
	50		50 CE 00065	MNEGL	R0, R0	
00000000G	FF		50 D1 00068 5\$:	CMPL	R0, @PHAN+4	
			14 19 0006F	BLSS	8\$	
			7E D4 00071	CLRL	-(SP)	0324
		00000000G	8F DD 00073	PUSHL	#RNFINM	
00000000G	EF		02 FB 00079 6\$:	CALLS	#2, ERMA	
	52		53 D0 00080 7\$:	MOVL	DEFAULT_SPACING, FINAL_SPACING	0326
			0A 11 00083	BRB	9\$	
			65 DD 00085 8\$:	PUSHL	NUMPRM+4	0332
00000000G	EF		01 FB 00087	CALLS	#1, GCPOS	
			04 0008E	RET		0331
			14 13 0008F 9\$:	BEQL	11\$	0344
	52	00	B4 C2 00091	SUBL2	@SCA+124, R2	0349
			52 D6 00095	INCL	R2	
			52 DD 00097	PUSHL	R2	
			03 14 00099	BGTR	10\$	
	6E		01 D0 0009B	MOVL	#1, (SP)	
00000000G	EF		01 FB 0009E 10\$:	CALLS	#1, GCSKIP	
			04 000A5 11\$:	RET		0351

ELSEN
V04-000

Module Level Declarations

K 14
16-Sep-1984 00:22:32
14-Sep-1984 13:06:06

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[RUNOFF.SRC]ELSEN.BLI;1 Page 7 (4)

: Routine Size: 166 bytes, Routine Base: \$CODE\$ + 0000

: 225 0352 1
: 226 0353 1 END !End of module
: 227 0354 0 ELUDOM

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	166	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
\$255\$DUA28:[SYSLIB]XPORT.L32;1	590	0	0	252	00:00.1
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	19	1	86	00:00.3

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:ELSEN/OBJ=OBJ\$:ELSEN MSRC\$:ELSEN/UPDATE=(ENH\$:ELSEN)

: Size: 166 code + 0 data bytes
: Run Time: 00:04.7
: Elapsed Time: 00:15.4
: Lines/CPU Min: 4548
: Lexemes/CPU-Min: 11678
: Memory Used: 55 pages
: Compilation Complete

0340

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